

REMARKS

Reconsideration and allowance of the above-referenced application, and entry of this amendment under Rule 116 are respectfully requested. Claims 1-17 are pending in the application.

The Applicant respectfully requests the Examiner to reconsider earlier rejections in light of the following remarks. No new issues are raised nor is further search required as a result of the changes made herein. Entry of the Amendment is respectfully requested.

Claims 1-17 over Fawaz

Claims 1-3, 12 and 13 stand rejected under 35 U.S.C. §102(e) over U.S. Patent Application Pub. No. 2003/0133406 A1 to Fawaz, with claims 4-11 and 14-17 rejected under §103(a) over Fawaz. The Applicant respectfully traverses the rejection.

Independent claim 1 specifies selectively outputting a flow control frame on a network switch port based on a determined depletion of network switch resources relative to a determined priority for a data frame received on a network switch port. Independent claim 12 specifies a flow control module that selectively outputs a flow control output signal to selected ones of network switch ports based on a determined depletion of network switch resources relative to a respective determined priority values based on a corresponding received data packet.

Hence, a flow control module can selectively determine whether a network switch port should output a flow control frame based on a determined depletion of network switch resources relative to a determined priority of data traffic received by a network switch port. High-priority traffic can be maintained to satisfy quality of service requirements, while reducing congestion by temporarily suspending lower priority traffic.

The Examiner alleges that Fawaz makes clear that uses of the terms Ethernet frames and packets are interchangeable, and since the control message is transmitted over an Ethernet network, Fawaz teaches a flow control message that is a frame (Office Action, page 7). The Applicant respectfully disagrees.

Fawaz using the terms Ethernet frames and packets as synonyms has nothing to do with Fawaz's control message being synonymous with the Applicant's claimed flow

control frame. As previously argued, Fawaz fails to even mention a flow control frame. A flow control frame is a term of art not equated to just any control information being sent from one network switch to another network switch packaged in a Ethernet frame.

The Examiner alleges that Applicant argues that the claim language requires the flow control frame to be selectively output on a subset of the switch ports and the Examiner fails to see the limitation in claim 1. The Applicant respectfully disagrees.

As one of ordinary skill in the art would recognize, a network switch must have at least two ports to be a network switch. Otherwise, a one port network element would be an end node (e.g., user workstation, printer, etc.). Claim 1 recites first determining a priority for a data frame received on a network switch port and selectively outputting a flow control frame on a network switch port based on a determined depletion of network switch resources relative to a determined priority. Thus, claim 1 recites selectively outputting a flow control frame on a network switch port of a network switch, with one of ordinary skill in the art understanding a network switch has at least two switch ports.

The Examiner alleges that Fawaz teaches a control message that is sent to its neighboring QOS nodes, and that QOS nodes are attached to regular, non-QOS packet switches (Office Action, page 7 and 8). The Examiner further alleges that the control message will not be sent to all of its neighboring nodes since some of its neighbors are not QOS nodes, i.e., a system that outputs a message on selected ones of network switch ports (Office Action, page 8). The Applicants respectfully disagree.

The Examiner is correct that Fawaz's system is comprised of a mixture of QOS nodes and non-QOS nodes. However, Fawaz sends a control message to all of the QOS nodes attached to the QOS node sending the control message. Since the QOS nodes work in concert to maintain a minimum bandwidth, the QOS nodes coordinate their actions by sending instructions to one another to establish a clear pipeline for data between a source and destination. When a control message is sent from a QOS node, all of the QOS nodes attached to a sending QOS node are sent the control message. None of the non-QOS nodes are sent the control message since it would serve no purpose as they do not regulate the flow of data within the system. Thus, the Applicant was correct in arguing that the control message is sent to all of the network switch ports, i.e., all of the QOS switch ports directing data to all neighboring QOS nodes.

The Examiner alleges that the claim language of claims 2 and 13 can be interpreted in a plurality of ways, and the Examiner interprets the language of claims 2 and 13 to recite a data frame at a network switch port (Office Action, page 8). The Applicants respectfully disagree.

Claim 2 is amended herein to clarify any ambiguity associated with where the priority of the data frame is determined. However, claim 13 recites each network switch port includes a port filter configured for determining the determined priority value for the corresponding data packet. Claim 13 is clear in that the determination of priority occurs at each network switch port.

It is believed claims 4-11 and 14-17 are allowable in view of their dependency from independent claims 1 and 12, respectively; and, the §103 rejection should be withdrawn.

Accordingly, for at least all the above reasons, claims 1-17 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-0687, under Order No. 95-320, and please credit any excess fees to such deposit account.

Respectfully submitted,
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Date: March 30, 2004